

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number
WO 2005/092689 A1

(51) International Patent Classification⁷: **B62D 5/04**

(21) International Application Number:
PCT/GB2005/001139

(22) International Filing Date: 18 March 2005 (18.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0406473.9 23 March 2004 (23.03.2004) GB

(71) Applicant (for all designated States except US): **TRW LUCASVARITY ELECTRIC STEERING LIMITED** [GB/GB]; Stratford Road, Solihull, West Midlands B90 4AX (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ANDRES FERNANDEZ, Angel, Luis**; 804 Millennium Apartments, 95 Newhall Street, Birmingham B3 1BA (GB). **WILLIAMS,**

Andrew, James, Stephen [GB/GB]; 10 Wilmhurst Road, Warwick CV34 5LN (GB). **DIBBEN, George, Thomas** [GB/GB]; 25 Glenville Avenue, Glenfield, Leicester LE3 8BE (GB).

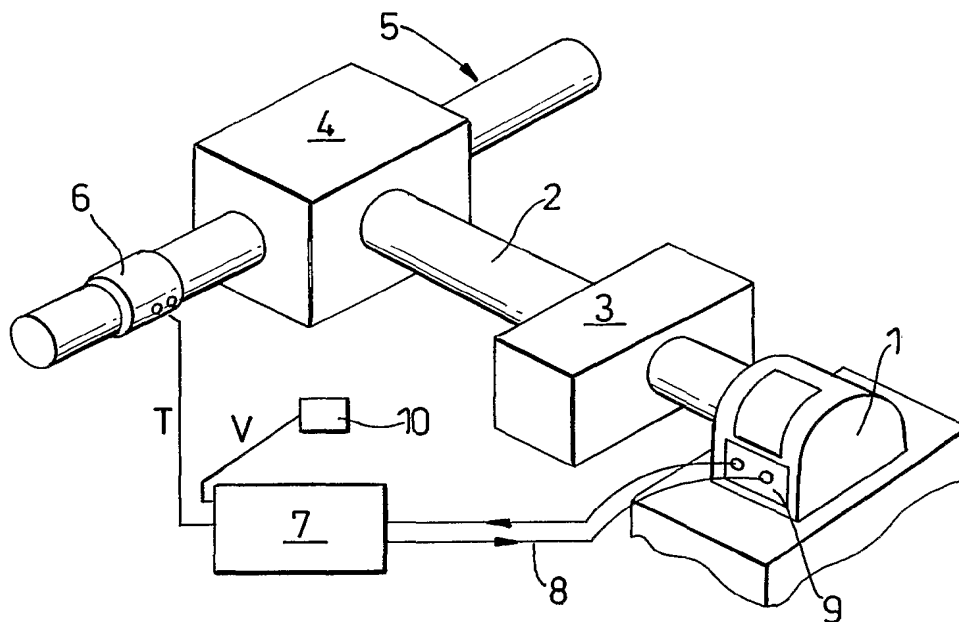
(74) Agent: **BARKER BRETTELL**; 138 Hagley Road, Edgbaston, Birmingham B16 9PW (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: ELECTRIC POWER ASSISTED STEERING APPARATUS



(57) Abstract: An electric power assisted steering apparatus for a vehicle that includes torque limiting means (150), arranged to limit the magnitude of the torque to be applied to the steering mechanism to a maximum of a value that increases in time from a first value to a second value at a rate that is dependent on the speed signal (V). Additionally or alternatively, it may be arranged to limit the maximum torque to a value that increases from a first to a second value at a rate that varies with time.

WO 2005/092689 A1



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*